

=====

Sequence Listing was accepted.

If you need help call the Patent Electronic Business Center at (866)  
217-9197 (toll free).

Reviewer: Durreshwar Anjum

Timestamp: [year=2009; month=2; day=3; hr=10; min=59; sec=28; ms=422; ]

=====

Application No: 10597926 Version No: 1.0

Input Set:

Output Set:

Started: 2009-01-19 19:17:12.376

Finished: 2009-01-19 19:17:13.112

Elapsed: 0 hr(s) 0 min(s) 0 sec(s) 736 ms

Total Warnings: 0

Total Errors: 0

No. of SeqIDs Defined: 2

Actual SeqID Count: 2

# SEQUENCE LISTING

<110> Ensoli, Barbara

<120> Novel Tat Complexes, And Vaccines Comprising Them

<130> 114-06

<140> 10597926

<141> 2009-01-19

<150> PCT/EP2005/003043

<151> 2005-03-11

<150> UK 0405480.5

<151> 2004-03-11

<160> 2

<170> PatentIn version 3.3

<210> 1

<211> 102

<212> PRT

<213> Human immunodeficiency virus type 1

<400> 1

Met Glu Pro Val Asp Pro Arg Leu Glu Pro Trp Lys His Pro Gly Ser  
1 5 10 15

Gln Pro Lys Thr Ala Cys Thr Asn Cys Tyr Cys Lys Lys Cys Cys Phe  
20 25 30

His Cys Gln Val Cys Phe Ile Thr Lys Ala Leu Gly Ile Ser Tyr Gly  
35 40 45

Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro Gln Gly Ser Gln Thr  
50 55 60

His Gln Val Ser Leu Ser Lys Gln Pro Thr Ser Gln Ser Arg Gly Asp  
65 70 75 80

Pro Thr Gly Pro Lys Glu Gln Lys Lys Lys Val Glu Arg Glu Thr Glu  
85 90 95

Thr Asp Pro Val His Gln  
100

<210> 2  
<211> 853  
<212> PRT  
<213> Human immunodeficiency virus type 1

<220>  
<221> misc\_feature  
<222> (23)..(23)  
<223> Xaa can be any naturally occurring amino acid

<220>  
<221> misc\_feature  
<222> (84)..(86)  
<223> Xaa can be any naturally occurring amino acid

<220>  
<221> misc\_feature  
<222> (138)..(139)  
<223> Xaa can be any naturally occurring amino acid

<220>  
<221> misc\_feature  
<222> (141)..(141)  
<223> Xaa can be any naturally occurring amino acid

<220>  
<221> misc\_feature  
<222> (143)..(143)  
<223> Xaa can be any naturally occurring amino acid

<220>  
<221> misc\_feature  
<222> (157)..(157)  
<223> Xaa can be any naturally occurring amino acid

<220>  
<221> misc\_feature  
<222> (167)..(167)  
<223> Xaa can be any naturally occurring amino acid

<220>  
<221> misc\_feature  
<222> (190)..(190)  
<223> Xaa can be any naturally occurring amino acid

<220>  
<221> misc\_feature  
<222> (243)..(243)  
<223> Xaa can be any naturally occurring amino acid

<220>  
<221> misc\_feature  
<222> (278)..(278)  
<223> Xaa can be any naturally occurring amino acid

<220>

```

<221> misc_feature
<222> (281)..(281)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> misc_feature
<222> (286)..(286)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> misc_feature
<222> (349)..(349)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> misc_feature
<222> (426)..(426)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> misc_feature
<222> (674)..(674)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> misc_feature
<222> (751)..(751)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> misc_feature
<222> (761)..(761)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> misc_feature
<222> (795)..(795)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> misc_feature
<222> (814)..(815)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> misc_feature
<222> (817)..(817)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> misc_feature
<222> (830)..(830)
<223> Xaa can be any naturally occurring amino acid

<400> 2

```

Met Arg Val Thr Glu Ile Arg Lys Ser Tyr Gln His Trp Trp Arg Trp

|   |     |     |     |
|---|-----|-----|-----|
| 1   | 5   | 10  | 15  |
| Gly Ile Met Leu Leu Gly Xaa Leu Met Ile Cys Asn Ala Glu Glu Lys | 20  | 25  | 30  |
| Leu Trp Val Thr Val Tyr Tyr Gly Val Pro Val Trp Lys Glu Ala Thr | 35  | 40  | 45  |
| Thr Thr Leu Phe Cys Ala Ser Asp Ala Lys Ala Tyr Asp Thr Glu Val | 50  | 55  | 60  |
| His Asn Val Trp Ala Thr His Ala Cys Val Pro Thr Asp Pro Asn Pro | 65  | 70  | 75  |
| Gln Glu Val Xaa Xaa Xaa Asn Val Thr Glu Asn Phe Asn Met Trp Lys | 85  | 90  | 95  |
| Asn Asn Met Val Glu Gln Met His Glu Asp Ile Ile Ser Leu Trp Asp | 100 | 105 | 110 |
| Gln Ser Leu Lys Pro Cys Val Lys Leu Thr Pro Leu Cys Val Thr Leu | 115 | 120 | 125 |
| Asn Cys Thr Asp Leu Arg Asn Ala Thr Xaa Xaa Asn Xaa Thr Xaa Thr | 130 | 135 | 140 |
| Thr Ser Ser Ser Arg Gly Met Val Gly Gly Gly Glu Xaa Lys Asn Cys | 145 | 150 | 155 |
| Ser Phe Asn Ile Thr Thr Xaa Ile Arg Gly Lys Val Gln Lys Glu Tyr | 165 | 170 | 175 |
| Ala Leu Phe Tyr Glu Leu Asp Ile Val Pro Ile Asp Asn Xaa Ile Asp | 180 | 185 | 190 |
| Arg Tyr Arg Leu Ile Ser Cys Asn Thr Ser Val Ile Thr Gln Ala Cys | 195 | 200 | 205 |
| Pro Lys Val Ser Phe Glu Pro Ile Pro Ile His Tyr Cys Ala Pro Ala | 210 | 215 | 220 |
| Gly Phe Ala Ile Leu Lys Cys Lys Asp Lys Lys Phe Asn Gly Lys Gly | 225 | 230 | 235 |
|   |     |     | 240 |

Pro Cys Xaa Asn Val Ser Thr Val Gln Cys Thr His Gly Ile Arg Pro  
245 250 255

Val Val Ser Thr Gln Leu Leu Leu Asn Gly Ser Leu Ala Glu Glu Glu  
260 265 270

Val Val Ile Arg Ser Xaa Asn Phe Xaa Asx Asn Ala Lys Xaa Ile Ile  
275 280 285

Val Gln Leu Asn Glu Ser Val Glu Ile Asn Cys Thr Arg Pro Asn Asn  
290 295 300

Asn Thr Arg Lys Ser Ile His Ile Gly Pro Gly Arg Ala Phe Tyr Thr  
305 310 315 320

Thr Gly Glu Ile Ile Gly Asp Ile Arg Gln Ala His Cys Asn Leu Ser  
325 330 335

Arg Ala Lys Trp Asn Asp Thr Leu Asn Lys Ile Val Xaa Lys Leu Arg  
340 345 350

Glu Gln Phe Gly Asn Lys Thr Ile Val Phe Lys His Ser Ser Gly Gly  
355 360 365

Asp Pro Glu Ile Val Thr His Ser Phe Asn Cys Gly Gly Glu Phe Phe  
370 375 380

Tyr Cys Asn Ser Thr Gln Leu Phe Asn Ser Thr Trp Asn Val Thr Glu  
385 390 395 400

Glu Ser Asn Asn Thr Val Glu Asn Asn Thr Ile Thr Leu Pro Cys Arg  
405 410 415

Ile Lys Gln Ile Ile Asn Met Trp Gln Xaa Val Gly Arg Ala Met Tyr  
420 425 430

Ala Pro Pro Ile Arg Gly Gln Ile Arg Cys Ser Ser Asn Ile Thr Gly  
435 440 445

Leu Leu Leu Thr Arg Asp Gly Gly Pro Glu Asp Asn Lys Thr Glu Val  
450 455 460

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Arg | Pro | Gly | Gly | Gly | Asp | Met | Arg | Asp | Asn | Trp | Arg | Ser | Glu | Leu | 465 | 470 | 475 | 480 |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Tyr | Lys | Tyr | Lys | Val | Val | Lys | Ile | Glu | Pro | Leu | Gly | Val | Ala | Pro | Thr | 485 | 490 | 495 |     |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Lys | Ala | Lys | Arg | Arg | Val | Val | Gln | Arg | Glu | Lys | Arg | Ala | Val | Gly | Ile | 500 | 505 | 510 |     |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Gly | Ala | Val | Phe | Leu | Gly | Phe | Leu | Gly | Ala | Ala | Gly | Ser | Thr | Met | Gly | 515 | 520 | 525 |     |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Ala | Ala | Ser | Met | Thr | Leu | Thr | Val | Gln | Ala | Arg | Leu | Leu | Leu | Ser | Gly | 530 | 535 | 540 |     |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Ile | Val | Gln | Gln | Gln | Asn | Asn | Leu | Leu | Arg | Ala | Ile | Glu | Ala | Gln | Gln | 545 | 550 | 555 | 560 |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| His | Leu | Leu | Gln | Leu | Thr | Val | Trp | Gly | Ile | Lys | Gln | Leu | Gln | Ala | Arg | 565 | 570 | 575 |     |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Val | Leu | Ala | Val | Glu | Arg | Tyr | Leu | Arg | Asp | Gln | Gln | Leu | Leu | Gly | Ile | 580 | 585 | 590 |     |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Trp | Gly | Cys | Ser | Gly | Lys | Leu | Ile | Cys | Thr | Thr | Ala | Val | Pro | Trp | Asn | 595 | 600 | 605 |     |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Ala | Ser | Trp | Ser | Asn | Lys | Ser | Leu | Asn | Lys | Ile | Trp | Asp | Asn | Met | Thr | 610 | 615 | 620 |     |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Trp | Met | Glu | Trp | Asp | Arg | Glu | Ile | Asn | Asn | Tyr | Thr | Ser | Ile | Ile | Tyr | 625 | 630 | 635 | 640 |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Ser | Leu | Ile | Glu | Glu | Ser | Gln | Asn | Gln | Gln | Glu | Lys | Asn | Glu | Gln | Glu | 645 | 650 | 655 |     |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Leu | Leu | Glu | Leu | Asp | Lys | Trp | Ala | Ser | Leu | Trp | Asn | Trp | Phe | Asp | Ile | 660 | 665 | 670 |     |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Thr | Xaa | Trp | Leu | Trp | Tyr | Ile | Lys | Ile | Phe | Ile | Met | Ile | Val | Gly | Gly | 675 | 680 | 685 |     |



Leu Ile Gly Leu Arg Ile Val Phe Ser Val Leu Ser Ile Val Asn Arg  
690 695 700

Val Arg Gln Gly Tyr Ser Pro Leu Ser Phe Gln Thr His Leu Pro Ala  
705 710 715 720

Ser Arg Gly Pro Asp Arg Pro Gly Gly Ile Glu Glu Glu Gly Gly Glu  
725 730 735

Arg Asp Arg Asp Arg Ser Gly Pro Leu Val Asn Gly Phe Leu Xaa Leu  
740 745 750

Ile Trp Val Asp Leu Arg Ser Leu Xaa Leu Phe Ser Tyr His Arg Leu  
755 760 765

Arg Asp Leu Leu Leu Ile Val Thr Arg Ile Val Glu Leu Leu Gly Arg  
770 775 780

Arg Gly Trp Glu Val Leu Lys Tyr Trp Trp Xaa Leu Leu Gln Tyr Trp  
785 790 795 800

Ser Gln Glu Leu Lys Asn Ser Ala Val Ser Leu Leu Asn Xaa Xaa Ala  
805 810 815

Xaa Ala Val Ala Glu Gly Thr Asp Arg Val Ile Glu Val Xaa Gln Arg  
820 825 830

Ala Val Arg Ala Ile Leu His Ile Pro Arg Arg Ile Arg Gln Gly Leu  
835 840 845

Glu Arg Ala Leu Leu  
850